WHAT IS CLAIMED IS:

1. A method of inhibiting human immunodeficiency virus (HIV) ribonucleotide reductase (Rr) in a subject infected with HIV comprising administering to said subject an amount of a gallium composition effective to inhibit Rr.

2. The method of claim 1, wherein HIV is HIV-1.

3. The method of claim 1, wherein HIV is HIV-2.

4. The method of claim 1, wherein HIV has infected a T-cell.

5. The method of claim 1, wherein said gallium composition is gallium nitrate.

6. The method of claim 1, wherein said gallium composition is a gallium-hydroxypyrone complex.

7. A method of inhibiting human immunodeficiency virus (HIV) replication in a subject infected with HIV comprising administering to said subject an amount of a gallium composition effective to inhibit HIV replication.

8. The method of claim 7, wherein HIV is HIV-1.

9. The method of claim 7, wherein HIV is HIV-2.

10. The method of claim 1, wherein HIV has infected a T-cell.

11. A method of treating a human subject infected with human immunodeficiency virus (HIV) comprising administering to said subject an amount of a gallium composition effective to inhibit HIV replication.

12. The method of claim 11, wherein HIV is HIV-1.

13. The method of claim 11, wherein HIV is HIV-2.

14. The method of claim 11, wherein said gallium composition is gallium nitrate.

15. The method of claim 11, wherein said gallium composition is a gallium-hydroxypyrone complex.

16. The method of claim 11, wherein said effective amount achieves *in vivo* concentrations of about 1 to about 30 μM.

17. The method of claim 16, wherein said effective amount is about 3 to about 20 μM.

18. The method of claim 11, wherein said effective amount is about 750 mg/m^2 given every two to three weeks.

19. The method of claim 11, wherein said effective amount is about 100 to about 300 mg/m^2 per day.

20. The method of claim 11, wherein said effective amount is given in a unit dose of about 200 mg to about 1000 mg.

21. The method of claim 11, wherein said gallium composition is administered orally.

22. The method of claim 21, wherein said gallium composition is in the form of a tablet.

23. The method of claim 21, wherein said gallium composition is in the form of a capsule.

24. The method of claim 11, wherein said gallium composition is administered intravenously.

25. The method of claim 11, wherein said gallium composition is sufficient to provide a blood plasma gallium concentration of 0.1 to 5.0 μg/ml.

26. The method of claim 11, further comprising treating said subject with a second anti-viral agent.

27. The method of 26, wherein said second anti-viral agent is a nucleoside reverse transcriptase inhibitor (NRTI).

28. The method of claim 26, wherein said NRTI is didexoyinosine.

29. The method of claim 26, wherein said NRTI is dideoxycytidine.

30. The method of claim 26, wherein said NRTI is 5-azidothymidine.

31. A method of reducing virus shed from a human subject infected with human immunodeficiency virus (HIV) comprising administering to said subject an amount of a gallium composition effective to inhibit HIV replication.

32. A method of reducing virus burden in a human subject infected with human immunodeficiency virus (HIV) comprising administering to said subject an amount of a gallium composition effective to inhibit HIV replication.

33. A method of inhibiting loss of T cells in a human subject infected with human immunodeficiency virus (HIV) comprising administering to said subject an amount of a gallium composition effective to inhibit HIV replication.

34. The method of claim 33, wherein the number of T cells in said subject increases following treatment with said gallium composition.

35. A method of inhibiting development of acquired immunodeficiency syndrome in a human subject infected with human immunodeficiency virus (HIV) comprising administering to said subject an amount of a gallium composition effective to inhibit HIV replication.

36. A therapeutic composition comprising:

(a) a gallium composition; and

(b) a nucleoside inhibitor.

37. The composition of claim 36, wherein said gallium composition is gallium nitrate.

38. The composition of claim 36, wherein said gallium composition is a gallium-hydroxypyrone complex.

39. The composition of claim 36, wherein the nucleoside inhibitor is one or more of the compounds selected from the group of dideoxyinosine, dideoxycytidine and 5-azidothymidine.

40. A kit comprising, in suitable container means:

(a) a gallium composition; and

(b) a nucleoside reverse transcriptase inhibitor.